J. ELECTROCARDIOLOGY 12 (4), 1979, 443-450

Author Index Volume 12

Abbott, J.A., 211
Agmon, J., 157
Akhtar, M., 221
Alboni, P., 41, 361
Avitall, B., 17, 271, 353
Awdeh, M.R., 235
Baldassarri, F., 41
Balke, W., 299
Banka, V.S., 205
Bastos Machado, H., 249
Behrenbeck, D.W., 343
Berger, K.R., 97
Bianchi, G., 121
Bisset, J.K., 35
Blanchard, W.B., 427
Blomqvist, C.G., 55
Bodenheimer, M.M., 205
Bolognesi, R., 121
Bonet, J.F., 55, 371
Bonoris, P.E., 179
Borkat, G., 69
Boudoulas, H., 103
Bruce, R.A., 97
Bucciarelli, R.L., 427
Camm, J., 227
Caracta, A.R., 221
Carleton, R.A., 403
Case, R.B., 395
Castellanet, M.J., 179
Chahine, R.A., 235
Cheah, J.-S., 263
Chorão de Aguiar, A.J., 381
Christison, G.W., 179
Codeca, L., 361
Cohen, H.C., 151
Coker, J., 325
Cory-Pearce, R., 227
Cowan, M.J., 97
Curione, M., 321
Damato, A.N., 221
Davis, M.A., 89
D'Cruz, I.A., 151
Diamond, D., 403
De Lorenzi, E., 41
De Micheli, A., 197
Dower, G.E., 249
Dreifus, L.S., 299
Ee, B., 263
Effendy, F.N., 121
Ellestad, M.H., 179
Feigl, D., 129
Fellstrom, B., 49
Fernaine, A., 315
Finley, J.P., 371
Fudemoto, Y., 109
Fuenmayor, I., 227
Gallagher, J.J., 65
Gangadharan, V., 241
Gascho, J.A., 331
Gil-Sanchez, D., 343
Gordon, S., 241
Greenberg, M.L., 403
Greenberg, P.S., 179
Griffith, D.H., 403
Guimarães, H., 381
Hattori, M., 77
Helfant, R.H., 205
Hermann, G.A., 205
Hilger, H.H., 343
Hillis, L.D., 89
Hombach, V., 343
Hope, R.R., 117
Inoue, M., 163
Isenstein, B., 377
Ishikawa, K., 163
Ishikawa, S., 77
Ito, A., 77, 307
Ito, T., 77
Jacob, A.I., 117
Jacobellis, G., 321
Kane, J., 35
Kaplinsky, E., 299
Keller, F.W., 83
Klein, G.J., 65
Kligfield, P., 3, 11
Krasnow, N., 315
Kumar, S.P., 295
Kwatra, M., 295
Lahav, M., 157
Larsen, R.A., 169
Lash, R., 325
Lau, S.H., 221
Lepeschkin, E., 1
Levine, H.J., 271
Lewin, R.F., 157
Lewis, R.P., 103
Liebman, J., 69
Louie, E.K., 89
Luchi, R.J., 235
Madias, J.E., 411
Malacarne, C., 41, 361
Mandel, W.J., 407
Mann, Jr., J.E., 23
Marcuson, R., 97
Maroko, P.R., 89
Masoni, A., 41, 361
McConnell, J.R., 35
Medrano, G.A., 197
Mehran-Pour, M., 69
Mieszala, J., 271
Miller, B.L., 427
Mills, H., 407
Mirvis, D.M., 83, 141, 169, 387
Mnayer, M., 235
Mogtader, A.H., 395
Murray, R.G., 55
Naimi, S., 271
Nordgren, L., 49
Ogawa, S., 299
Oguri, H., 187
Ohno, M., 187
Ohta, T., 187
Okamoto, K., 109
Parkey, R.W., 55
Pasdar, H., 205
Patel, M., 137
Peshock, R.M., 55
Pick, A., 151
Pirani, R., 41
Plonsey, R., 337
Powers, W.E., 97
Pozzar, F., 321
Puletti, M., 321
Raizner, A.E., 235
Ramos, R.G., 241
Raposo, A., 381
Ravid, M., 129
Rees, G.M., 227
Ribiero, L.G.T., 89
Riggs, T., 377
Righetti, G., 321

Robinson, J.L., 103
Rubenson, D.S., 221
Sawada, K., 77
Schaal, S.F., 103
Schamroth, L., 279
Scheinman, M.M., 211
Schieken, R., 331
Schmidt, N., 35
Schwartz, D.B., 279
Sclarovsky, S., 157
Scovil, J.A., 35
Sperelakis, N., 23
Spurrell, R.A.J., 227
Stein, H.I., 407
Stein, R.A., 315
Strasberg, B., 157
Strauss, H.C., 211
Sugenoya, J., 187
Tamura, T., 163
Tanahashi, Y., 77
Tansey, W.A., 395
Tauchert, M., 343
Thomas, C., 377
Timmis, G.C., 241
Toda, H., 283
Toyama, J., 77, 187, 307
Toyama, S., 109
Toyoshima, H., 187, 307
Trout, R.G., 205
Tsuzuki, J., 77
Visioli, O., 121
Wada, M., 187
Wakasugi, S., 109
Wald, R.W., 371
Wallace, A.G., 65
Ward, D.E., 227
Wartak, J., 217, 425
Watanabe, Y., 283
Watson, J.W., 35
Waxman, M.B., 371
Weisfogel, G.M., 315
Westveer, D.C., 241
Whitney, A., 69
Willerson, J.T., 55
Wong, B.Y.S., 325
Yamada, K., 187, 307
Yans, J., 295
Yasui, S., 77
Zanker, R., 343
Zao, Z.Z., 437
Zema, M.J., 3, 11
Zoneraich, O., 137
Zoneraich, S., 137

Subject Index Volume 12

Action potential
effects of membrane capacitance on the transmission of, 1:23-34

Activation
distributed nature of, 4:337-341

Animal studies
body surface potential distributions in posterior ventricular pre-excitation, 2:187-195
changes in myocardial refractory periods following ischemia in the porcine heart, 1:35-40
computer simulation of ventricular tachyarrhythmias during coronary artery ligation and release, 1:17-22
effect of the autonomic blockade on the automaticity of the A-V junctional pacemakers in awake dogs, 1:77-81
electrocardiographic changes induced by acute coronary ligation in the isolated rabbit heart, 2:141-150
experimental evaluation of the mean electrical equivalent generator of the isolated rabbit heart, 4:387-394
experimental evaluation of a moving dipole-octapole pair equivalent cardiac generator, 2:169-177
right posterior ventricular necrosis, 2:197-204
strength-interval curves of isolated rat papillary muscle during hypoxia and reoxygenation: effect of Lidocaine, 4:353-360
time course of changes in ventricular excitability and conduction during myocardial ischemia and reperfusion in the dog, 3:271-277
transfer of coupling of premature ventricular contractions to an ectopic ventricular tachycardia: A mechanism for atypical bidirectional tachycardia, 1:65-68

Anterior fascicular block
right precordial q wave due to, 1:41-48

Artifacts
unusual artifacts in electrocardiographic monitoring, 3:295-298

Arrhythmias
multiple, 2:221-226

Atrial repolarization
its role in ST elevation, 3:321-324

Atrial standstill
partial and total, alternation of, 1:121-127

Autonomic blockade
effect of, on the automaticity of the A-V junctional pacemaker in awake dogs, 1:77-81

A-V block
effects of Dobutamine on, 4:361-370

A-V junctional pacemaker
effect of the autonomic blockade on the automaticity of, in awake dogs, 1:77-81

B

Bidirectional tachycardia
atypical, a mechanism for, 1:65-68

Biomagnetism
Second International Conference on, 1:1-2

Bundle branch block
alternans, effects of stable and changing rates and premature ventricular beats on, 2:151-156
rate related, induced elimination of, during paroxysmal atrial tachycardia, 4:371-376

C

Calcified mitral annulus
conduction disturbances in patients with, 2:137-139

Cardiac electrical stimulation
a microprocessor controlled timing device for, 1:83-87

Carotid sinus massage
induced elimination of rate related Bundle Branch Block during paroxysmal atrial tachycardia, 4:371-376

Computer
computerized methods, 4:353-360
method for analysing vector rates, 1:49-54
a microprocessor controlled timing device for cardiac electrical stimulation, 1:83-87
simulation of ventricular tachyarrhythmias during coronary artery ligation and release, 1:17-22
use of, to analyse time course of changes in myocardial refractory periods, 1:35-40
XYZ data interpreted by a 12-lead computer program using the derived electrocardiogram, 3:249-261

Concealed atrial rhythms
revealed by intracardiac recordings, 2:234

Conduction disturbances
in patients with calcified mitral annulus, 1:137-139

Coronary artery disease
morphologic analysis of exercise-induced ST segment depression in prediction of, 3:235-239
predicting with treadmill stress testing, 2:179-185

Coronary artery occlusion
early augmentation of R wave voltage after, 1:89-95

D

Dipole
theory, 4:387-394

Dipole-octapole pair
experimental evaluation of a moving dipole-octapole pair equivalent cardiac generator, 2:169-177

Directional statistics
clinical importance of, for electrocardiographic differentiation of smoking habits, 1:97-102

Directional sequence
of limb leads, 4:437-439

Dobutamine
effects of, on electrophysiological properties of specialized conduction system in man, 4:361-370

Drug studies
cardiac electrophysiologic effects of Etafenone Hydrochloride (Dialicor), a new antiarrhythmic agent, 3:283-293
effects of Dobutamine on electrophysiological properties of specialized conduction system in man, 4:361-370
electrocardiographic observations of the termination of supraventricular tachycardia by Verapamil, 2:129-136
strength-interval curves of isolated rat papillary muscle during hypoxia and reoxygenation: effect of Lidocaine, 4:353-360
time course of changes in ventricular excitability and conduction during myocardial ischemia and reperfusion in the dog: effect of Lidocaine, 3:271-277

Dysrhythmia
ventricular parasystole in a newborn infant, 4:427-429

E

Ebstein's anomaly
in association with anomalous nodoventricular conduction, 2:227-233

Echocardiography
conduction disturbances in patients with calcified mitral annulus diagnosed by, 2:137-139

Electrocardiogram
derived, XYZ data interpreted by a 12-lead computer program using the, 3:249-261
scalar, 4:337-341

rhythm analysis, scale for, 2:217-219
sex differences in, 3:307-314
spectral analysis of, in children and adults, 4:337-341
standard, 4:395-401
surface electrocardiogram Q waves, 2:205-210

Electrocardiography
electrocardiographic changes in thyrotoxic periodic paralysis, 3:263-279
electrocardiographic observations on the termination of supraventricular tachycardia by Verapamil, 2:129-136
electrocardiographic QRS changes induced by acute coronary ligation in the isolated rabbit heart, 2:141-150
in myocardial infarction, 4:411-423
orthogonal electrocardiographic study on progressive muscular dystrophy, 2:163-167
precordial ECG belt for obtaining rapid reproducible precordial leads, 4:407-410
torso mounted electrocardiographic electrodes for routine clinical electrocardiography, 4:403-406
unusual artifacts in electrocardiographic monitoring, 3:295-298

Electrophysiology
cardiac electrophysiologic effects of Etafenone Hydrochloride (Dialicor), 3:283-293
Ebstein's anomaly in association with anomalous nodoventricular conduction. Pre-operative and post-operative electrophysiological studies, 2:227-233
effects of Dobutamine on electrophysiological properties of specialized conduction in man, 4:361-370
electrophysiologic testing, for patients with sinus node dysfunction, 2:211-216

Electrovectorcardiography
the normal values of spatial velocity in the second part of QRS, 4:381-386

Endocardial activation
role of, in malignant ventricular arrhythmias associated with acute ischemia, 3:299-306

Equivalent cardiac generator
electrocardiographic QRS changes induced by acute coronary ligation in the isolated rabbit heart, 2:141-150
experimental evaluation of the mean electrical equivalent generator of the isolated rabbit heart, 4:387-394

Ergometer
limitations of exercise testing in critical left coronary artery disease, 3:241-248

Etafenone hydrochloride (Dialicor)
effects of, 3:283-293

Exercise
increasing preexcitation during, 3:315-320
testing
limitations of, in critical left coronary artery disease, 3:241-248
predictive value of, 3:235-239
torso mounted electrocardiographic electrodes for routine clinical electrocardiography, 4:403-406

F

Frontal vector
a sequential angular lead presentation, 4:395-401

G

Glucocorticosteroid therapy
role of, for myocardial sarcoidosis, 3:325-329

Graphs
a grid for calculating vectorcardiographic loop areas, 4:425-426

H

Heart
block
complete congenital, 3:331-335
treatment of, 3:325-329
vector, 1:97-102

High frequency notch and slur
incidence and significance of, 2:163-167

His bundle
electrography, 4:343-351
flutter and fibrillation-like phenomenon of, 1:109-116

Hyaluronidase
early augmentation of R wave voltage after coronary artery occlusion; a useful index of myocardial injury, 1:89-95

Hypokalaemia
electrocardiographic changes in thyrotoxic periodic paralysis, 3:263-279

I

Intraatrial
endocardial surface recordings, 4:343-351

L

Left axis deviation
the effect of pregnancy on the frontal plane QRS axis, 3:279-281

Left coronary artery disease
limitations of exercise testing in critical left coronary artery disease, 3:241-248

Left ventricular hypertrophy
electrocardiographic poor R wave progression I: correlation with the Frank Vectorcardiogram, 1:3-10
electrocardiographic poor R wave progression II: correlation with angiography, 1:11-16

Lidocaine
time course of changes in ventricular excitability and conduction during myocardial ischemia and reperfusion in the dog: effect of Lidocaine, 3:271-277
treatment, effectiveness of, on PVCs, 2:157-161

Lithium toxicity
prolongation of the Q-T interval in, 1:117-119

Loop area distribution
a grid for calculating vectorcardiographic loop areas, 4:425-426

M

Magnetocardiography (MCG)
progress in, 1:1

Mahaim pathway
Ebstein's anomaly in association with anomalous nodoventricular conduction. Pre-operative and intra-operative electrophysiological studies, 2:227-233

Maps
body surface potential, 2:187-195
isopotential mapping, 2:141-150
isopotential surface mapping, 4:387-394
ST isopotential, 1:55-64

Membrane capacitance
effects of, on the transmission of an action potential between two adjacent cardiac cells, 1:23-34

Microprocessors
a microprocessor controlled timing device for cardiac electrical stimulation, 1:83-87

Model
ECG torso model, 3:307-314
for electrical transmission between myocardial cells not connected by low resistance pathways, 1:23-34
of moving dipole-octapole pair equivalent generator, 2:169-177

Multi-stage exercise testing
superiority of 24-hour outpatient monitoring over, for the evaluation of syncope, 1:103-108

Myocardial fibrosis
relationship between, and epicardial and surface electrocardiogram Q waves in man, 2:205-210

Myocardial infarction
electrocardiography in, 4:411-423
electrocardiographic poor R wave progression I: correlation with the Frank vectorcardiogram, 1:3-10
electrocardiographic poor R wave progression II: correlation with angiography, 1:11-16
electrocardiographic QRS changes, 2:141-150

Myocardial infarction, acute
early augmentation of R wave voltage after coronary artery occlusion: a useful index of myocardial injury, 1:89-95
premature ventricular contractions in, 2:157-161
ST isopotential precordial surface maps in patients with, 1:55-64

Myocardial infarction, post
right posterior ventricular necrosis. An experimental study, 2:197-204

Myocardial ischemia, acute
role of endocardial activation in malignant ventricular arrhythmias associated with acute ischemia, 3:299-306

Myocardial refractory periods
changes in, following ischemia, 1:35-40

Myocardial sarcoidosis
treatment of heart block due to sarcoid heart disease, 3:325-329

N

Newborn infant
ventricular parasystole in, 4:427-429

O

Orthogonal lead system
corrected, 3:307-314

P

Pacing
atrial overdrive, 2:211-216
congenital complete heart block and long Q-T syndrome requiring ventricular pacing, 3:331-335
a microprocessor controlled timing device for cardiac electrical stimulation, 1:83-87

Paroxysmal atrial tachycardia (PAT)
carotid sinus massage induced elimination of rate related Bundle Branch Block during, 4:371-376

Persistent atrial standstill
flutter and fibrillation-like phenomenon of His bundle observed in a patient with, 1:109-116

Polarcardiogram
Clinical importance of directional statistics for electrocardiographic differentiation of smoking habits, 1:97-102

Poor R wave progression
correlation with angiography, 1:11-16
correlation with the Frank Vectorcardiogram, 1:3-10

Precordial ECG belt
for obtaining rapid reproducible precordial leads, 4:407-410

Pre-excitation
Ebstein's anomaly in association with anomalous nodoventricular conduction, 2:227-233
increasing, during exercise and Isoproterenol infusion, 3:315-320
posterior ventricular, 2:187-195

Pregnancy
the effect of, on the frontal plane QRS axis, 3:279-281

Premature ventricular beats
effects of stable and changing rates and premature ventricular beats on transient tachycardia-, pseudobradycardia-, and bradycardia-dependent Bundle Branch Block alternans, 2:151-156

Premature ventricular contractions
in acute myocardial infarction, 2:157-161

Progressive muscular dystrophy
of the Duchenne type, orthogonal electrocardiographic study on, 2:163-167

P waves
alternation of partial and total atrial standstill, 1:121-127
a scale for ECG rhythm analysis, 2:217-219

Q

Quadrigeminy and Quintageminy
concealed, 4:431-436

QRS
axis, the effect of pregnancy on, 3:279-281
complex, 2:187-195
normal values of spatial velocity in the second part of, 4:381-386

Q-T interval
prolongation of, in Lithium toxicity, 1:117-119

Q-T syndrome
congenital complete heart block and long Q-T syndrome requiring ventricular pacing, 3:331-335

Q waves
relationship between myocardial fibrosis and epicardial and surface electrocardiogram Q waves in man, 2:205-210

R

Reentrant tachycardia
Ebstein's anomaly in association with anomalous nodoventricular conduction, 2:227-233

Rheumatic heart disease
alternation of partial and total atrial standstill, 1:121-127

Right posterior ventricular necrosis
an experimental study, 2:197-204

Right precordial q waves
due to anterior fascicular block, 1:41-48

Right ventricular hypertrophy
electrocardiographic poor R wave progression I: correlation with the Frank vectorcardiogram, 1:3-10
electrocardiographic poor R wave progression II: correlation with angiography, 1:11-16

Right ventricular pressure
quantification of the Frank and McFee-Parungao orthogonal electrocardiogram in valvular pulmonic stenosis, 1:69-76

RR interval
a scale for ECG analysis, 2:217-219

R-wave
amplitude, changes in, 2:179-185
early augmentation of R wave voltage after coronary artery occlusion, 1:89-95

S

Scalar presentation
a sequential angular lead presentation, 4:395-401

Scale
for ECG rhythm analysis, 2:217-219

Sinus nodal potentials
in man, 4:343-351

Sinus node dysfunction
electrophysiologic testing for patients with, 2:211-216

Spatial vector electrocardiography
directional sequence of limb leads and the lead circle, 4:437-439

Spatial velocity
normal values of, 4:381-386

Spectral analysis
of the normal ECG in children and adults, 4:377-379

Spherical means and variances
clinical importance of directional statistics for electrocardiographic differentiation of smoking habits, 1:97-102

Strength-interval curves
time course of changes in ventricular excitability and conduction during myocardial ischemia and reperfusion in the dog, 3:271-277

ST depression
compared with changes in R-wave amplitude, 2:179-185
electrocardiography in myocardial infarction, 4:
exercise-induced, the evolutionary pattern of, 3:235-239
increasing pre-excitation during exercise and Isoproterenol infusion, 3:315-320

ST elevation
role of atrial repolarization in, 3:321-324

ST isopotential precordial surface maps
in patients with acute myocardial infarction, 1:55-64

Supraventricular tachycardia
termination by Verapamil, 2:129-136

Syncopal attacks
flutter and fibrillation-like phenomenon of His bundle observed in a patient with persistent atrial standstill, 1:109-116

Syncope
evaluation of, 1:103-108

T

Tachycardias
effects of stable and changing rates and premature ventricular beats on transient tachycardia-, pseudobradycardia-, and bradycardia-dependent Bundle Branch Block alternans, 2:151-156
multiple mechanisms of, in a patient with the Wolff-Parkinson-White syndrome, 2:221-226

Ta wave
atrial repolarization: its role in ST elevation, 3:321-324

Telemetry monitoring
unusual artifacts in electrocardiographic monitoring, 3:295-298

Thyrotoxic periodic paralysis
electrocardiographic changes in, 3:263-279

Torso mounted electrocardiographic electrodes
for routine clinical electrocardiography, 4:403-406

Torso shape
effects of, on ECG and VCG lead vectors in a homogeneous torso model, 3:307-314

Treadmill testing
the evolutionary pattern of exercise-induced ST segment depression, 3:235-239
limitations of exercise testing in critical left coronary artery disease, 3:241-248
predicting coronary artery disease with, 2:179-185

T wave changes
prolongation of the Q-T interval in Lithium toxicity, 1:117-119

Twenty-four outpatient monitoring
superiority of, over multi-stage exercise testing for the evaluation of syncope, 1:103-108

V

Valvular pulmonic stenosis
Quantification of the Frank and McFee-Parungao orthogonal electrogram in, 1:69-76

Vectorcardiogram
spectral analysis of the normal electrocardiogram in children and adults, 4:377-379
XYZ data interpreted by a 12-lead computer program using the derived electrocardiogram, 3:249-261

Vectorcardiography
experimental evaluation of the mean electrical equivalent generator of the isolated rabbit heart, 4:387-394
a grid for calculating vectorcardiographic loop areas, 4:425-426
quantification of the Frank and McFee-Parungao orthogonal electrocardiogram in valvular pulmonic stenosis, 1:69-76
right precordial q waves due to anterior fascicular block. Clinical and vectorcardiographic study, 1:41-48

Vector rates
initial, of QRS, 1:49-54

Ventricular aneurysm
electrocardiography in myocardial infarction, 4:411-423

Ventricular arrhythmias
role of endocardial activation in malignant ventricular arrhythmias associated with acute ischemia, 3:299-306

Ventricular extrasystoles
initial vector rates in differentiation between supraventricular extrasystoles with aberration and ventricular extrasystoles, 1:49-54

Ventricular gradient of Wilson
a contemporary view of, 4:337-341

Ventricular parasystole
in a newborn infant, 4:427-429

Ventricular tachyarrhythmias
computer simulation of, 1:17-22

Ventricular tachycardia
congenital complete heart block and long Q-T syndrome requiring ventricular pacing for control of refractory ventricular tachycardia and fibrillation, 3:331-335
transfer of coupling of premature ventricular contractions to an ectopic ventricular tachycardia, 1:65-68

Verapamil
termination of supraventricular tachycardia by, 2:129-136

W

Wolff-Parkinson-White (WPW) syndrome
carotid sinus massage induced elimination of rate related Bundle Branch Block during paroxysmal atrial tachycardia: simple method of proving bypass tract participation in the tachycardia, 4:371-376
Ebstein's anomaly in association with anomalous nodoventricular conduction, 2:227-233
increasing pre-excitation during exercise and Isoproterenol infusion, 3:315-320
multiple mechanisms of tachycardia in a patient with, 2:221-226

X

XYZ data
interpreted by a 12-lead computer program, 3:249-261

Z

Zao Circular Reference System
directional sequence of limb leads and the lead circle, 4:437-439

NUMBER 1

Editorial:
Progress in Magnetocardiography II
By *E. Lepeschkin* 1
Original Communications:
Electrocardiographic Poor R Wave Progression I: Correlation With the Frank Vectorcardiogram
By *M. J. Zema and P. Kligfield* 3
Electrocardiographic Poor R Wave Progression II: Correlation With Angiography
By *M. J. Zema and P. Kligfield* 11
Computer Simulation of Ventricular Tachyarrhythmias During Coronary Artery Ligation and Release
By *B. Avitall* 17
Further Development of a Model For Electrical Transmission Between Myocardial Cells Not Connected by Low-resistance Pathways
By *J. E. Mann, Jr. and N. Sperelakis* 23
Changes in Myocardial Refractory Periods Following Ischemia in the Porcine Heart
By *J. K. Bisset, J. W. Watson, J. A. Scovil, N. Schmidt, J. R. McConnell and J. Kane* 35
Right Precordial q Waves Due To Anterior Fascicular Block. Clinical and Vectorcardiographic Study
By *P. Alboni, C. Malacarne, E. De Lorenzi, R. Pirani, F. Baldassarri and A. Masoni* 41
Initial Vector Rates in Differentiation between Supraventricular Extrasystoles with Aberration and Ventricular Extrasystoles
By *B. Fellstrom and L. Nordgren* 49
ST Isopotential Precordial Surface Maps in Patients with Acute Myocardial Infarction
By *R. G. Murray, R. M. Peshock, R. W. Parkey, F. J. Bonte, J. T. Willerson and C. G. Blomqvist* 55
Transfer of Coupling of Premature Ventricular Contractions to an Ectopic Ventricular Tachycardia: A Mechanism for Atypical Bidirectional Tachycardia
By *G. J. Klein, Andrew G. Wallace and J. J. Gallagher* 65
Quantification of the Frank and McFee-Parungao Orthogonal Electrocardiogram in Valvular Pulmonic Stenosis. Correlations with Hemodynamic Measurement
By *M. Mehran-Pour, A. Whitney, J. Liebman and G. Borkat* 69
Effect of the Autonomic Blockade on the Automaticity of the A-V Junctional Pacemaker in Awake Dogs
By *Y. Tanahashi, J. Toyama, A. Ito, K. Sawada, T. Ito, J. Tsuzuki, M. Hattori, S. Ishikawa and S. Yasui* 77
A Microprocessor Controlled Timing Device For Cardiac Stimulation
By *D. M. Mirvis and F. W. Keller* 83
Early Augmentation of R Wave Voltage After Coronary Artery Occlusion: A Useful Index of Myocardial Injury
By *L. G. T. Ribeiro, E. K. Louie, L. D. Hillis, M. A. Davis and P. R. Maroko* 89
Clinical Importance of Directional Statistics for Electrocardiographic Differentiation of Smoking Habits
By *R. Marcuson, W. E. Powers, R. A. Bruce, K. R. Berger and M. J. Cowan* 97
Superiority of 24-Hour Outpatient Monitoring Over Multi-stage Exercise Testing for the Evaluation of Syncope
By *H. Boudoulas, S. F. Schaal, R. P. Lewis and J. L. Robinson* 103
Case Studies:
Flutter and Fibrillation-Like Phenomenon of His Bundle Observed in a Patient with Persistant Atrial Standstill
By *W. Wakasugi, K. Okamoto, Y. Fudemoto and S. Toyama* 109
Prolongation of the Q-T Interval in Lithium Toxicity
By *A. I. Jacob and R. R. Hope* 117
Alternation of Partial and Total Atrial Standstill
By *F. N. Effendy, R. Bolognesi, G. Bianchi and O. Visioli* 121

NUMBER 2

Original Communications:
Electrocardiographic Observations on the Termination of Supraventricular Tachycardia by Verapamil
By D. Feigl and M. Ravid 129
Conduction Disturbances in Patients with Calcified Mitral Annulus Diagnosed by Echocardiography
By S. Zoneraich, O. Zoneraich and M. Patel 137
Electrocardiographic QRS Changes Induced by Acute Coronary Ligation in the Isolated Rabbit Heart
By D. M. Mirvis 141
Effects of Stable and Changing Rates and Premature Ventricular Beats on Transient Tachycardia-, Pseudobradycardia-, and Bradycardia-Dependent Bundle Branch Block Alternans
By H. C. Cohen, I. A. D'Cruz and A. Pick 151
Premature Ventricular Contractions in Acute Myocardial Infarction. Correlation Between Their Origin and the Location of Infarction
By S. Sclarovsky, B. Strasberg, M. Lahav, R. R. Lewin and J. Agmon 157
Orthogonal Electrocardiographic Study on Progressive Muscular Dystrophy of the Duchenne Type
By K. Ishikawa, T. Tamura and M. Inoue 163
Experimental Evaluation of a Moving Dipole-Octapole Pair Equivalent Cardiac Generator
By D. M. Mirvis and R. A. Larsen 169
Predicting Coronary Artery Disease with Treadmill Stress Testing: Changes in R-Wave Amplitude Compared with ST Segment Depression
By G. W. Christison, P. E. Bonoris, P. S. Greenberg, M. J. Castellanet and M. H. Ellestad 179
Body Surface Potential Distributions in Posterior Ventricular Pre-excitation
By H. Oguri, M. Wada, J. Sugenoya, M. Ohno, H. Toyoshima, J. Toyama, K. Yamada and T. Ohta 187
Right Posterior Ventricular Necrosis. An Experimental Study
By G. A. Medrano and A. de Micheli 197
Relationship Between Myocardial Fibrosis and Epicardial and Surface Electrocardiogram Q Waves in Man
By M. M. Bodenheimer, V. S. Banka, R. G. Trout, G. A. Hermann, H. Pasdar and R. H. Helfant 205
Review:
Electrophysiologic Testing for Patients with Sinus Node Dysfunction
By M. M. Scheinman, H. C. Strauss and J. A. Abbott 211
Annotation:
A Scale for ECG Rhythm Analysis
By J. Wartak 217
Case Studies:
Multiple Mechanisms of Tachycardias in a Patient with the Wolff-Parkinson-White Syndrome
By D. S. Rubenson, M. Akhtar, S. H. Lau, A. R. Caracta and A. N. Damato 221
Ebstein's Anomaly in Association with Anomalous Nodoventricular Conduction. Pre-Operative and Intra-Operative Electrophysiological Studies
By D. E. Ward, J. Camm, R. Cory-Pearce, I. Fuenmayor, G. M. Rees and R. A. J. Spurrell 227
Letter to the Editor:
Concealed Atrial Rhythms
By J. Tenczer and L. Littmann 234

NUMBER 3

Original Communications:

The Evolutionary Pattern of Exercise-Induced ST Segment Depression
By *R. A. Chahine, M. R. Awdeh, M. Mnayer, A. Raizner* and *R. J. Luchi* 235

Limitations of Exercise Testing in Critical Left Coronary Artery Disease
By *G. C. Timmis, D. C. Westveer, S. Gordon, R. G. Ramos and V. Gangadharan* 241

XYZ Data Interpreted by a 12-Lead Computer Program Using the Derived Electrocardiogram
By *G. E. Dower* and *H. Bastos Machado* 249

Electrocardiographic Changes in Thyrotoxic Periodic Paralysis
By *B. Ee* and *J.-S. Cheah* 263

Time Course of Changes in Ventricular Excitability and Conduction During Myocardial Ischemia and Reperfusion in the Dog: Effect of Lidocaine
By *B. Avitall, S. Naimi, H. J. Levine* and *J. Mieszala* 271

The Effect of Pregnancy on the Frontal Plane QRS Axis
By *D. B. Schwartz* and *L. Schamroth* 279

Cardiac Electrophysiologic Effects of Etafenone Hydrochloride (Dialicor), A New Antiarrhythmic Agent
By *H. Toda* and *Y. Watanabe* 283

Unusual Artifacts in Electrocardiographic Monitoring
By *S. P. Kumar, J. Yans* and *M. Kwatra* 295

Role of Endocardial Activation in Malignant Ventricular Arrhythmias Associated with Acute Ischemia
By *E. Kaplinsky, S. Ogawa, W. Balke* and *L. S. Dreifus* 299

Effects of Torso Shape and Change of Dipole Location on ECG and VCG Lead Vectors in a Homogeneous Torso Model
By *H. Toyoshima, A. Ito, J. Toyama* and *K. Yamada* 307

Case Studies:

Increasing Pre-Excitation During Exercise and Isoproterenol Infusion. Evidence for a Catecholamine Sensitive Bypass Tract
By *G. M. Weisfogel, R. A. Stein, A. Fernaine* and *N. Krasnow* 315

Atrial Repolarization: Its Role in ST Elevation
By *M. Puletti, M. Curione, F. Pozzar, G. Righetti* and *G. Jacobellis* 321

Treatment of Heart Block Due to Sarcoid Heart Disease
By *R. Lash, J. Coker* and B. Y. S. Wong 325

Congenital Complete Heart Block and Long Q-T Syndrome Requiring Ventricular Pacing for Control of Refractory Ventricular Tachycardia and Fibrillation
By *J. A. Gascho* and *R. Schieken* 331

NUMBER 4

Original Communications:
A Contemporary View of the Ventricular Gradient of Wilson
By *R. Plonsey* 337
An Approach to Direct Detection of Sinus Nodal Activity in Man
By *V. Hombach, D. Gil-Sanchez, R. Zanker, D.W. Behrenbeck, M. Tauchert and H.H. Hilger* 343
Strength-Interval Curves of Isolated Rat Papillary Muscle During Hypoxia and Reoxygenation: Effect of Lidocaine
By *B. Avitall* 353
Effects of Dobutamine on Electrophysiological Properties of the Specialized Conduction System in Man
By *A. Masoni, P. Alboni, C. Malacarne and L. Codeca* 361
Carotid Sinus Massage Induced Elimination of Rate Related Bundle Branch Block During Paroxysmal Atrial Tachycardia: A Simple Method of Proving Bypass Tract Participation in the Tachycardia
By *M.B. Waxman, R.W. Wald, J.F. Bonet and J.P. Finley* 371
Spectral Analysis of the Normal Electrocardiogram in Children and Adults
By *T. Riggs, B. Isenstein and C. Thomas* 377
The Normal Values of Spatial Velocity in the Second Part of QRS (A Cooperative Study of 229 Healthy Individuals)
By *A.J. Chorão de Aguiar, H. Guimarães and A. Raposo* 381
Experimental Evaluation of the Mean Electrical Equivalent Generator of the Isolated Rabbit Heart
By *D. M. Mirvis* 387

Methods:
A Sequential Angular Lead Presentation
By *R. B. Case, W.A. Tansey and A.H. Mogtader* 395
Torso Mounted Electrocardiographic Electrodes for Routine Clinical Electrocardiography
By *D. Diamond, D.H. Griffith, M.L. Greenberg and R.A. Carleton* 403
The Precordial ECG Belt for Obtaining Rapid Reproducible Precordial Leads
By *H. Mills, H.I. Stein and W.J. Mandel* 407

Review:
Electrocardiography in Myocardial Infarction
By *J.E. Madias* 411

Annotation:
A Grid for Calculating Vectorcardiographic Loop Areas
By *J. Wartak* 425

Case Studies:
Ventricular Parasystole in a Newborn Infant
By *W.B. Blanchard, R.L. Bucciarelli and B.L. Miller* 427
Concealed Quadrigeminy and Quintageminy
By *M.N. Levy, P. Goldman and L. Goldberg* 431

Editorial
Directional Sequence of Limb Leads and the Lead Circle
By *Z.Z. Zao* 437

Letter to the Editor:
A Relationship Between Vitamin C Intake and Electrocardiography
By *E. Cheraskin and W.M. Ringsdorf, Jr.* 441

Index 443